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MONTANA WEATHER AND CROP SUMMARY

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U. S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service

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WEATHER AND CROP SUMMARY

6-Months-October 1961 through March 1962

TEMPERATURE October temperatures averaged colder than the long-term means in all divisions, but varied from very warm to unseasonably cold. Temperature extremes for the month were 90 degrees at Flatwillow the 14th and -8 degrees at Lincoln 14 NE the 29th. Cold weather, with only a few brief interruptions, persisted throughout November and December. The first spell of severe cold in two years was experienced from December 8-12, minimums being observed in the -30's or -40's at many stations. Coldest was -43 degrees at Summit the 10th and Ovando 7 WNW the 11th. The first few days of January were unseasonably warm, but a cold wave the 7th brought real winter again to all areas. By the morning of the 10th, sub-zero temperatures had become general, and West Yellowstone observed -55 degrees--coldest of the winter in Montana. Most stations, however, observed their coldest temperature of the season the 21st, minimums ranging from the -20's to the -40's nearly everywhere. The week ending January 23 was one of the coldest in Montana's climate history. It was unseasonably warm the last few days of January east of the Divide, but about seasonable west, with maximums in the 50's or 60's from the 28th through the 31st. Warmest was 68 degrees at Fort Benton the 31st. Warmer than usual weather prevailed until a cold wave on February 22 overspread the State, resulting in -40 degrees to -50 degree lows in much of the north-eastern division on the 27th and 28th. March temperatures were colder than seasonal in all divisions, with late February cold carrying over into early March.

PRECIPITATION October was cloudy with frequent showers or snow throughout the month. November had more than usual snow except in eastern and southwest portions. December was unusually stormy, but moisture was mostly deficient. There was an unusual occurrence of winter thunderstorms in Dillon, Drummond, Helena, and Bozeman areas the 21st. Only minor damage was caused by these storms. Freezing rain fell on one or more days in the western portion, causing some difficulty to surface transportation. Snow was fairly frequent January through March. Fall and winter months were not unusually stormy, even though snow or rain was fairly frequent. In general, precipitation averaged above normal except in the north central and two eastern divisions. One area in which the season's precipitation was well below average covers most of the northeastern division and the northern portion of the southeastern division; and a second dry area lies from northern Fergus County northwestward to the Canadian Border. In other sections, precipitation totals ranged from 30 percent below to more than 60 percent above the long-term means.

SEVERE STORMS Unusually high winds over most of the area east of the Continental Divide December 21 caused considerable damage to buildings, TV aerials, signs, storm windows and doors. Three workmen at the Clark Canyon Dam near Armstead were injured when steel siding was blown off a building. Gusts up to 97 miles per hour were reported at the Livingston airport, and from 40 to 60 miles per hour in other areas. Another windstorm along the eastern slopes of the Divide on January 5-6 damaged some buildings and power lines. Gusts were estimated at 100 mile-per-hour speeds at Browning and Choteau. In Central Montana, it was unusually windy from January 22-25. There was some minor damage to buildings, and drifting snow blocked highways at times. Gust speeds estimated at 100 miles per hour in the Augusta-Fairfield area did considerable damage to power lines. Drifting snow blocked roads most of the afternoon and evening December 17 in Northern Chouteau and Pondera counties. During the cold wave of February 22, many roads were closed for a time east of the Divide by drifting snow.

WATER SUPPLY FORECASTS FOR APRIL - SEPTEMBER
(As of April 1, 1962)

WEST OF THE CONTINENTAL DIVIDE Based on 15-year averages, 1943-1957, the Kootenai River at Libby is expected to flow 87 percent of average; Flathead at Columbia Falls, 97 percent, and 96 percent at Polson; Clark Fork above Missoula, 101 percent, and 93 percent at Plains; and the Blackfoot at Bonner 104 percent, assuming that spring and summer precipitation will be about seasonal.

EAST OF THE CONTINENTAL DIVIDE If precipitation is near normal throughout the spring and summer, the Missouri River at Toston is expected to flow 107 percent of the 1943-1957 average. The streamflow of the Marias River near Shelby is expected to be about 105 percent of average. About 10 percent flow is anticipated into Fort Peck Reservoir. The picture is not so good on the Milk River, with a forecast of only 73 percent at Milk River, Alberta, and 67 percent at Eastern Crossing for March through September. The forecast for the Yellowstone River at Billings is 106 percent, and at Sidney, 104 percent.

(Over)

CROP AND LIVESTOCK SUMMARY, OCTOBER 1961 - MARCH 1962

The hot and dry conditions that prevailed during the summer of 1961 were relieved by rains in September. All of the small grains had been harvested by October 1, but sugar beet harvesting was just starting. There were also considerable quantities of potatoes, dry beans, safflower, hay and grass seed crops still in the fields. Wet and stormy weather interfered with harvesting of these crops, but by about December 1 they were all harvested except some sugar beets which froze in the ground and were abandoned. The favorable fall precipitation gave winter wheat seedings a good start. Germination was good and wheat went into winter in good condition. Snowcover and adequate topsoil moisture helped reduce damage from wind blowing and winterkill.

Range and pasture grazing conditions were only fair to good and below normal during the fall and winter as a result of the hot and dry weather during the spring and summer. Growth of grass was short and sparse. Production of hay and roughage in the eastern part of the State was insufficient for needs. Much hay was trucked in from irrigated areas and from sources outside the State. Cold weather during January increased the need for supplemental feeding. Hay supplies were further reduced by above normal feeding rates. Release of Government CCC stocks of barley and corn to drought disaster areas relieved shortages to some extent. In spite of the meager feed supplies, livestock wintered surprisingly well and were in good condition this spring. Losses in early born calves and lambs were heavier than usual due to cold weather and disease. Nutrition problems were somewhat more prevalent than normal. Stockwater supplies were much improved over a year ago.

Cool temperatures and wet fields during March of this year delayed seed-bed preparation. As of April 1, little field work had been done. Crop outlook on April 1 was quite favorable. Winter wheat survived the winter in good condition and early appraisals indicate below average abandonment. Topsoil moisture was adequate in all areas, but subsoil moisture shortages prevailed over a large area east of the Continental Divide. Prospective supplies of irrigation water for 1962 are much improved over a year ago and are mostly above average, but shortages are expected in localized areas, particularly in the Milk River basin. However, most crop and grasslands will be, to a large extent, dependent upon timely and adequate precipitation during the growing season.

6-Month Total Precipitation, October 1961 - March 1962 (Inclusive)

Station	Precipitation	6-Month Long-term mean	Station	Precipitation	6-Month Long-term mean
<u>WESTERN DIVISION</u>					
Alborton	10.72		Missoula 2 WNW	7.28	5.49
Big Fork 12 S	11.51		Missoula WBAS	7.09	5.29
Creston	9.15		Ovando 1 SW	8.45	8.15
Darby	5.95	8.24	Ovando 7 WNW	4.57	
Drummond FAA AP	4.34	3.74*	Philipsburg RS	3.32	5.23
East Anaconda	5.52	4.79	Pleasant Valley	9.30	10.85
Elliston	6.30		Polebridge	12.64	
Eureka	7.33		Polson Airport	6.01	6.50
Fortine 1 NNE	7.07	8.44	Polson Kerr Dam	6.86	
Hamilton	4.80	5.55	Saint Ignatius	7.56	5.79
Haugan	22.03	22.27	Saint Regis	12.91	
Heron 2 NW	22.05	24.10	Seeley Lake RS	15.09	
Hungry Horse Dam	17.53		Stevensville	5.44	6.14
Kalispell WBAS	7.17	7.33	Sula	6.48	
Kalispell	7.33		Summit	22.54	
Libby RS 1 NE	10.15	11.77	Superior	9.78	8.78
Libby 32 SSE	16.22		Thompson Falls PH	15.47	12.62
Lindbergh Lake	18.22		Troy RS	15.17	
Lolo Hot Springs	14.80		Troy 18 N	21.83	
Lonepine 1 WNW	6.55	5.89	West Glacier	14.03	16.32
<u>SOUTHWESTERN DIVISION</u>					
Alder 17 S	3.72		Jackson	4.27	
Belgrade FAA AP	4.36	4.17*	Lakeview	11.27	
Boulder	2.52		Lima	2.06	2.72
Bozeman Agr. College	6.54	6.48	Norris 3 ENE	6.21	
Bozeman 12 NE	15.11		Norris Madison PH	9.83	5.84
Butte FAA AP	2.64	3.15	Pony	8.26	
Dillon FAA AP	2.34	2.12*	Trident	2.71	
Dillon WMCE	2.86	3.22	Twin Bridges	2.27	
Divide 2 NW	4.35		Virginia City	6.75	4.42
Ennis	3.62	2.28	West Yellowstone	16.13	11.59
Glen 4 N	1.12		Whitehall	2.99	2.11*
Hebgen Dam	20.06	14.53	Wisdom	4.06	

*Means for short-term period of record through 1960.

6-Month Total Precipitation, October 1961 - March 1962 (Inclusive)

Station	Precipitation	6-Month Long-term mean	Station	Precipitation	6-Month Long-term mean
<u>NORTH CENTRAL DIVISION</u>					
Babb NE	4.05	6.02	Harlem	3.18	3.35
Blackleaf	4.26		Havre WBAS	2.19	3.28
Brady Aznoe	1.29		Hays	3.68	
Browning	5.24	4.64	Joplin 1 N	1.43	
Chester	1.40		Lonesome Lake	2.71	
Chinook	2.87	3.27	Malta	1.75	3.00
Choteau	2.85	2.11	Malta 35 S	1.14	
Cleveland 5 ENE	2.84		Phillips 1 S	1.67	
Conrad	1.93	2.69	Rudyard 30 N	2.98	
Cut Bank FAA AP	1.67	2.41	Saco (Nelson Res.)	1.14	
Del Bonita	1.80		Shelby	2.04	
Dunkirk 14 NNE	1.88	2.73	Shonkin 7 S	8.90	
Fairfield	3.61	2.40	Simpson 4 NNW	2.34	2.04
Forks 5 NE	1.37		Sweetgrass	2.79	
Fort Assinniboine	1.99	2.69	Telegraph Creek	2.13	2.76
Fort Benton	3.36	4.45*	Tiber Dam	1.81	
Geraldine	3.56		Turner	2.49	
Gildford	2.47		Valier	2.06	2.50
Goldbutte 7 N	1.46				
<u>CENTRAL DIVISION</u>					
Augusta	3.40	3.76	Lewistown FAA AP	3.77	4.50
Austin 1 W	5.16		Lincoln 14 NE	10.46	
Barber	3.87		Lincoln RS	7.06	
Canyon Ferry PH	2.61		Melstone	2.78	3.30
Cascade 5 S	3.55	3.82	Moccasin Exp. Sta.	2.79	3.09
Cascade 20 SSE	3.43		Raynesford	3.67	
Flatwillow 4 ENE	3.30	3.04	Roundup	3.33	2.71
Gibson Dam	6.56	5.48	Roy 8 NE	2.71	
Grass Range	4.86		Stanford 2 NE	3.28	3.77
Great Falls WBAS	5.08	4.35	Sun River 5 SW	3.49	
Harlowton	2.97		Toston	2.68	
Helena WBAS	2.95	3.36	Townsend	2.96	
Holter Dam	2.68	3.42	White Sulphur Spgs.	9.52	7.27
			Winifred	3.11	3.70
<u>SOUTH CENTRAL DIVISION</u>					
Ballantine	3.35	3.59	Joliet	5.90	
Belfry	2.11		Kirby 1 S	4.66	
Big Timber	4.92	4.30	Livingston	5.28	4.29
Billings Water Plant	5.00	3.97	Livingston FAA AP	4.41	4.14
Billings WBAS	7.63	4.50	Melville	4.01	
Bridger	4.89		Mystic Lake	10.00	8.77
Broadview	6.99		Nye	7.14	
Columbus	5.20	3.75	Nye (Mouat Mine)	10.23	
Crow Agency	5.65	5.12	Rapelje 4 S	5.24	3.70
Gardiner	5.39		Red Lodge	7.81	6.63
Hardin	3.84		Wilsall	5.14	
Huntley Exp. Sta.	4.04	3.52	Wilsall 8 NE	6.12	
Hysham	3.48		Wyola	4.78	5.13
Hysham 19 SSE	4.04		Yellowstone Park NE	13.08	
<u>NORTHEASTERN DIVISION</u>					
Bredette	1.57		Nohly 3 WNW	1.66	
Brockway	.62		Opheim 12 SSE	1.38	
Circle	1.11	2.05	Poplar	1.34	2.37
Culbertson	1.63	2.58	Redstone	1.43	
Fort Peck	2.06		Richey	.92	
Frazer	2.16	3.08	Savage	1.25	2.59
Glasgow WBAS	2.50	3.01	Scobey	1.76	
Glendive	2.09	2.82	Sidney	1.75	2.76
Hinsdale	1.80		Thoeny	2.35	
Jordan	1.40	2.50	Vida	2.01	4.43
Lustre 4 NNW	1.93	1.97	Westby	2.17	
Medicine Lake 3 SE	2.16	2.42	Wolf Point 4 ESE	2.27	
Mosby 2 ENE	1.69				
Mosby 18 N	1.90				
<u>SOUTHEASTERN DIVISION</u>					
Albion	3.80		Mildred	1.69	2.80
Birney	3.19		Miles City	2.73	
Brandenberg	3.24		Miles City FAA AP	2.34	3.13
Broadus	2.82	3.75	Mizpah 4 NNW	1.91	
Colstrip	4.45	4.65	Moorhead 5 NE	2.12	
Ekalaka	3.08	2.90	Otter 9 SSW	5.53	
Forsyth 2 E	2.11		Ridgway 1 S	2.34	
Ingomar 11 NE	1.21		Terry	1.47	
Lame Deer	5.06		Wibaux 2 E	1.16	

*Means for short-term period of record through 1960.

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